

REMARKS/ARGUMENTS

In response to the Office Action dated July 25, 2006, claims 3, 5-7, 10 and 12-14 have been amended, and claims 1, 2, 4, 8, 9 and 11 have been canceled. Claims 3, 5-7, 10 and 12-14 are now pending in this application. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

I. Claims 1, 2, 4-9 and 11-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Nakagawa et al. (U.S. 2003/0058183).

Anticipation, under 35 U.S.C. § 102, requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference.

Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983).

To expedite prosecution, claim 5 has been amended to be in independent form including all the limitations of base claim 1 and dependent claim 4, and to recite:

one of said other end portion of the circuit board and said other end portion of the auxiliary board that is laid on top of the other includes a through hole, and

the circuit board and the auxiliary board are connected together electrically through solder filled in the through hole.

Portions of original claims 1 and 4 now included in amended claim 5 have been amended to provide better form.

In addition, claim 12 has been amended to be in independent form including all the limitations of base claim 8 and dependent claim 11, and to recite:

one of said circuit board second end and said auxiliary board first end that supports the other includes a through hole, and

said circuit board and said auxiliary board are connected together electrically by solder in said through hole.

Portions of original claims 8 and 11 now included in amended claim 12 have been amended to provide better form.

Thus, each of amended claim 5 and 12 still requires the through hole and that the circuit board and auxiliary board are connected together electrically through solder filled in the through hole, as did original claims 5 and 12.

The Examiner refers to paragraphs [0058], [0062] and Fig. 10 of Nakagawa et al. as showing this through hole. The Examiner specifically refers to the cream solder that is filled in the through hole. However, paragraph [0058] describes that cream solder is filled in each recess portion 23 in advance and the solder is melted in a reflow furnace or the like to simply and surely ground the circuits boards 6, 7 to shield case 5. Paragraph [0062] describes coating cream solder on the earth pattern 28 of first circuit board 6 in advance and by melting the cream solder in a reflow furnace after snap-in of the short caps 8, and the short caps 8 are soldered to the earth pattern 28 of the first circuit board 6. Neither grounding the circuits boards 6, 7 to shield case 5 nor soldering the short caps 8 to the earth pattern 28 of the first circuit board 6 correspond to connecting the circuit board and the auxiliary board together *electrically* through solder filled in a through hole.

As clearly depicted in Fig. 12 of Nakagawa et al., each recess portion 23 is provided on end portions of each of circuit boards 6 and 7. However, none of the recess portions 23 of circuit board 6 are provided to electrically connect circuit board 6 to circuit board 7 or vice versa. In addition, the pair of short caps 8 are provided only on circuit board 6 and are used to pinch and

fix circuit board 6 between wave guides 1 and 2 and the pair of short caps 8 (see paragraph [0062]). The only through holes described are 6a and 7a provided respectively in circuit boards 6 and 7. However, these through holes do not receive solder, they receive respective fitting pawls 22 of the shield case.

Thus, Nakagawa et al. does not disclose the though holes recited in amended claims 5 and 12. Consequently, amended claim 5, and claims 6 and 7, as amended, depending from amended claim 5, as well as amended claim 12, and claims 13 and 14, as amended, depending from amended claim 12, are patentable over Nakagawa et al.

II. Claims 3 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakagawa et al. in view of Ikeda (EP Patent Application 1349231).

To expedite prosecution, claim 3 has been amended to be in independent form including all the limitations of base claim 1 and dependent claim 2, and to recite:

the other end portion of the circuit board and the other end portion of the auxiliary board are connected together via a pin having a “U” shape in longitudinal section view.

Portions of original claims 1 and 2 now included in amended claim 3 have been amended to provide better form.

In addition, claim 10 has been amended to be in independent form including all the limitations of base claim 8 and dependent claim 9, and recites:

said connector comprises a U-shaped pin.

Portions of original claims 8 and 9 now included in amended claim 10 have been amended to provide better form.

Thus, each of amended claims 3 and 10 still requires that the connection of the circuit board and the auxiliary board is via a "U" shape pin, as did original claims 3 and 10.

The Examiner refers to the housing 1 of Ikeda, which has a rectangular U-shaped top wall 1e that forms an edge of the periphery thereof which comprises the rectangular circuit board 9. However, top wall 1e is not a U-shaped pin that can be used to connect together the end portions of circuit boards 6 and 7 of Nakagawa et al. Furthermore, Ikeda neither disclose nor suggest using top wall 1e of housing 1 to connect together circuit boards contained within housing 1.

Thus, amended claims 3 and 10 are patentable over Nakagawa et al. and Ikeda, considered alone or in combination, and their allowance is respectfully solicited.

CONCLUSION

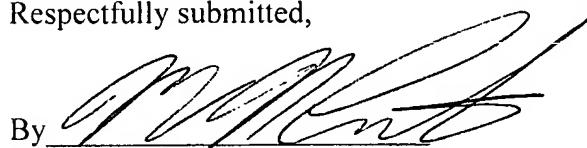
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By


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